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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Andrew A. Adamczyk et al.

Serial No.: 10/065,796

Filed: November 20, 2002

For: METHOD AND APPARATUS TO IMPROVE  
CATALYZED HYDROCARBON TRAP EFFICIENCY

Attorney Docket No.: FMC 1427 PUS

Group Art Unit: 1724

Examiner: Frank M. Lawrence, Jr.

**REPLY BRIEF UNDER 37 C.F.R. § 41.41**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
U.S. Patent & Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Reply Brief is in response to the Examiner's Answer mailed on September 10, 2004 for the above-identified patent application.

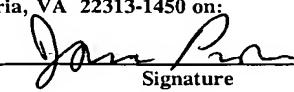
The Examiner admits in his Response Brief that Hertl et al. ("Hertl") does not generally disclose "using hydrocarbon-removing material having a sufficiently low Si to Al atom ratio such that less than about 50% of the low molecular weight hydrocarbons desorb from the material at a temperature of about 250° C." (Examiner's Response, section 11). The Examiner proceeds to maintain his rejection by stating that "specific materials are taught in the examples of the patent that anticipate the claimed adsorber material and are inherently capable of performing in the same manner recited in the claims." (Examiner's Response, section 11).

**CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8**

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Hertl does not appreciate or disclose the tailoring of a tandem water-removing composition and hydrocarbon-removing material with properties such that significant desorption of the low molecular weight hydrocarbons does not occur at a temperature at which a catalytic converter in a vehicle exhaust may remove such hydrocarbons. Applicants have demonstrated that case law holds that an invention may be patentable even when it discloses a composition with ranges that overlap with the prior art. Moreover, the Examiner continues to fail to appreciate that the limitation "hydrocarbon-removing material having a sufficiently low Si to Al atom ratio such that less than about 50% of the low molecular weight hydrocarbons desorb from the material at a temperature of about 250° C" is more than a specific ratio. Instead, this limitation represents a tailoring of the temperature behavior to be useful in modern automobile exhausts which will have a catalyst downstream of the hydrocarbon material. Such catalysts typically operate at temperatures above 250° C thereby making the present invention useful. Applicants attempted to make a further amendment clarifying this point but the Examiner refused to enter such an amendment.

Further proof that Hertl fails to disclose the present invention is found with the Hertl specification. Hertl states:

Although it is not necessary, by-pass valving can be used as is known in the art to direct exhaust gas flow to the drying agent and hydrocarbon-removing agent system, and to the main body catalyst.

Hertl, col. 8, ll. 3-6.

Clearly, Hertl does not appreciate that such by-passing is completely unnecessary if appropriate selection of the hydrocarbon material is made as set forth in the present invention.

The Examiner dismisses Applicants' arguments regarding Minami et al. ("Minami") by stating that this reference is only "relied on to show that if the Hertl et al.

patent were deemed not to disclose the instantly claimed absorber material" (Examiner's Response, section 11). Examiner's assertion is an admission that Hertl is deficient in its disclosure. Moreover, as stated in Applicants' Opening Brief Minami requires a by-passing of the hydrocarbon absorber under certain conditions (Minami, col. 4, ll. 50-53). Accordingly, Minami teaches away from the present invention by failing to recognize that such by-passing is not needed since modern catalysts do not require a high temperature of operation.

Accordingly, for the reasons set forth above and in Applicants' Opening Brief, Applicants respectfully request that the Board issue an opinion finding the pending claims of the present application allowable.

Respectfully submitted,

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